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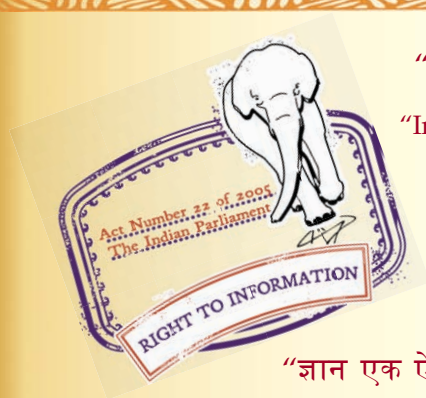
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IS 1178 (1986): Cotton filter cloth [TXD 33: Industrial Fabrics]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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IS : 1178 - 1986

(Reaffirmed 2003)

Indian Standard

SECIFICATION FOR COTTON FILTER CLOTH

(Second Revision)

UDC 677.21.074:66.067.332



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INDIAN STANDARDS INSTITUTION
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NEW DELHI 110002

Indian Standard

SPECIFICATION FOR COTTON FILTER CLOTH

(Second Revision)

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Indian Standard
**SPECIFICATION FOR
COTTON FILTER CLOTH**
(Second Revision)

0. F O R E W O R D

0.1 This Indian Standard (Second Revision) was adopted by the Indian Standards Institution on 10 February 1986, after the draft finalized by the Industrial Textiles Sectional Committee had been approved by the Textile Division Council.

0.2 This standard was first revised in 1973. The present revision has been made in the light of the experience gained in implementing the standard since its first revision in 1973.

0.3 In the present revision, thirteen varieties have been included instead of only two varieties in the first revision due to the production and use of such type of filter cloths in the industry. The revised version covers a significant portion of the total cotton filter clothes consumed by various industries. Cotton filter clothes are generally used in sugar, cement, chemical and oil industries.

0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes constructional details and other particulars of thirteen varieties of grey cotton filter cloth.

1.2 This standard does not specify the general appearance, feel, etc, of the filter cloth.

*Rules for rounding off numerical values (revised).

2. MANUFACTURE

2.1 Yarn — The cotton yarn used in the manufacture of the filter cloth shall be satisfactory in evenness and reasonably free from neps and spinning defects.

2.2 Cloth — The filter cloth shall be free from dressing and filling materials and from substances liable to cause subsequent tendering.

2.2.1 The filter cloth, when visually examined, shall be reasonably free from spinning, weaving and processing defects.

3. REQUIREMENTS

3.1 Construction — The filter cloth shall comply with the requirements of Table 1 excepting the count of warp and weft which have been given only for guidance.

3.2 The other requirements of the filter cloth shall be as given in Table 2.

4. MARKING

4.1 The filter cloth shall be marked with the following:

- a) Name of the material;
- b) Variety No.;
- c) Width and length of the piece;
- d) Manufacturer's name, initials or trade-mark, if any; and
- e) Month and year of manufacture.

4.1.1 The filter cloth may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

4.2 At both ends of the piece, the filter cloth shall be marked with an identification mark.

TABLE 1 PARTICULARS OF COTTON FILTER CLOTH

(Clause 3.1)

VARIETY No.	UNIVERSAL COUNT (see NOTE 1)		ENDS/dm	PICKS/dm	MASS	BREAKING STRENGTH ON 5.0 × 20 cm STRIPS, Min		WEAVE	THICKNESS
	Warp	Weft				Warp-way	Weft-way		
(1)	(2)	(3)	(4)	(5)	(6) g/m ²	(7) N	(8) N	(9)	(10) mm
i)	42 tex/3	42 tex/3	190	134	450	1 500	900	2/2 Twill	1.00
ii)	37 tex/4 or 49 tex/3	37 tex/4 or 49 tex/3	190	134	520	1 700	1 100	2/2 Twill	1.00
iii)	37 tex/4	59 tex/2	190	166	520	1 700	1 100	2/2 Twill	0.95
iv)	37 tex/4 or 49 tex/3	37 tex/4 or 49 tex/3	190	150	550	1 700	1 300	2/2 Twill	1.00
v)	49 tex/3	42 tex/3	220	134	550	1 900	900	2/2 Twill	1.00
vi)	49 tex/2	81 tex/2	250	160	550	1 400	1 400	2/2 Broken Twill	1.00
vii)	49 tex/3	49 tex/6	190	94	610	1 300	1 700	Plain	1.05
viii)	49 tex/3	59 tex/3	250	94	610	2 200	900	2/2 Twill 2 ends as 1	1.05
ix)	42 tex/3	42 tex/6	250	110	680	2 000	1 700	2/2 Twill 2 ends as 1	1.40
x)	49 tex/3	49 tex/6	300	106	820	2 700	1 800	2/2 Twill 2 ends as 1	1.45
xi)	42 tex/3	49 tex/6	330	106	820	2 700	1 800	2/2 Twill 2 ends as 1	1.40
xii)	59 tex/3	49 tex/6	250	94	820	2 700	1 700	2/2 Twill 2 ends as 1	1.70
xiii)	94 tex/11	81 tex/13	85	45	1 640	4 000	2 400	Plain	2.55
TOLERANCE percent	—	—	±2.5	±5	+5 -2.5	—	—	—	±0.05 mm
METHOD OF TEST	—	—	IS : 1963-1981*	IS : 1964-1970†	—	IS : 1969-1968‡	—	Visual IS : 7702-1975§	—

NOTE 1 — Universal Count of 37, 42, 49, 59, 81 and 94 tex are approximately equal to cotton count of 16, 14, 12, 10, 7.3 and 6.3s.

NOTE 2 — IN=0.102 kgf approximately.

*Methods for determination of threads per unit length in woven fabrics (*first revision*).

†Methods for determination of weight per square metre and weight per linear metre of fabrics (*first revision*).

‡Methods for determination of breaking load and elongation at break of woven textile fabrics (*first revision*).

§Methods for determination of thickness of woven and knitted fabrics.

TABLE 2 OTHER REQUIREMENTS OF FILTER CLOTH

(Clause 3.2)

SL No. (1)	CHARACTERISTIC (2)	REQUIREMENT (3)	METHOD OF TEST (4)
i)	Width, cm	As agreed, ± 1 percent subject to a minimum of 1 cm in each direction	IS : 1954-1969*
ii)	Length	As agreed $\pm \frac{2}{1}$ percent	IS : 1954-1969*

*Methods for determination of length and width of fabrics (*first revision*).

5. PACKING

5.1 The filter cloth shall be packed in bales or cases in conformity with the procedures laid down in IS : 1347-1972* or in IS : 293-1980†, as required.

6. SAMPLING AND CRITERIA FOR CONFORMITY

6.1 For determining the conformity in respect of the physical characteristics, namely, ends and picks, mass per square metre, breaking load width, length and thickness the scale of sampling and criteria for conformity as given in IS : 3919-1966‡ shall be followed.

*Specification for inland packaging of cotton cloth and yarn (*first revision*).†Code for seaworthy packaging of cotton yarn and cloth (*third revision*).

‡Methods for sampling cotton fabrics for determination of physical characteristics.



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